J. W. GUNBY.

METHOD AND MACHINE FOR DRYING, CLEANING, AND POLISHING MOVING PICTURE FILMS.

APPLICATION FILED JUNE 12, 1920.

1,401,771. Patented Dec. 27, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

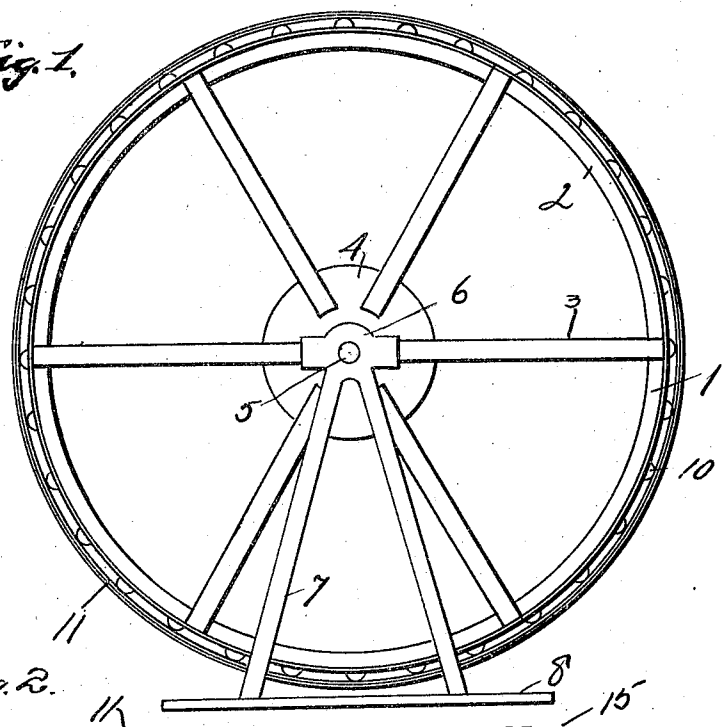
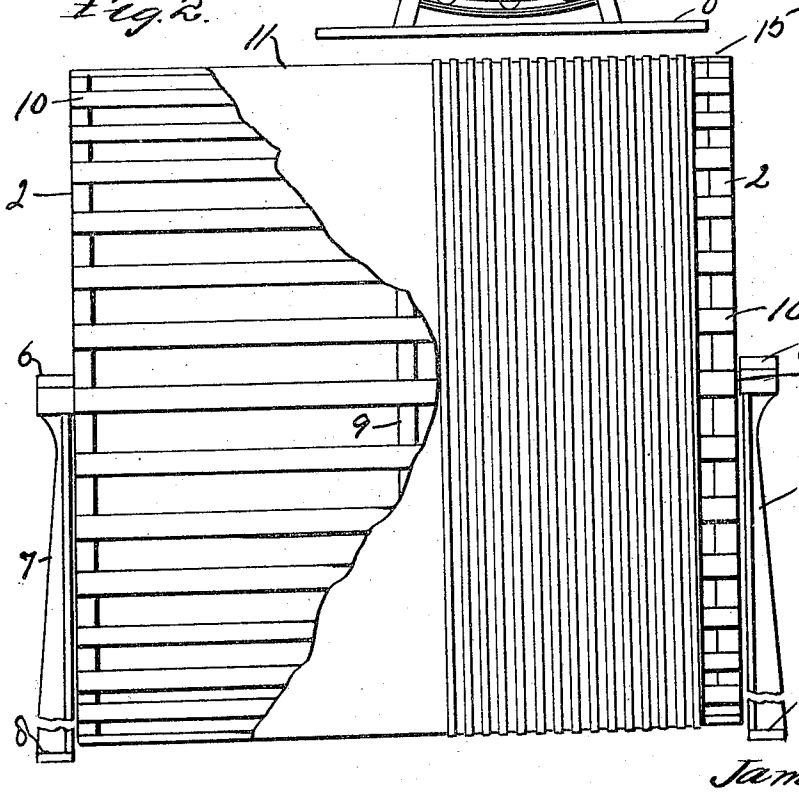


Fig. 2.



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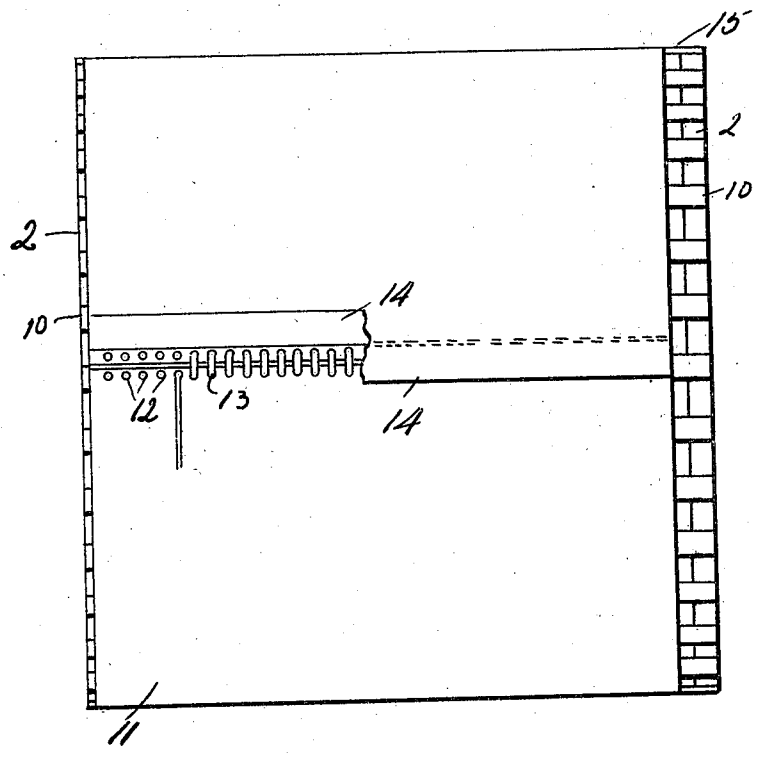
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Fig. 3.



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UNITED STATES PATENT OFFICE.

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METHOD AND MACHINE FOR DRYING, CLEANING, AND POLISHING MOVING-PICTURE FILMS.

1,401,771. Specification of Letters Patent. Patented Dec. 27, 1921.

Application filed June 12, 1920. Serial No. 388,673.

To all whom it may concern:

Be it known that I, JAMES W. GUNBY, a citizen of the United States, residing at Ridgefield Park, in the county of Bergen and State of New Jersey, have invented new and useful Improvements in Methods and Machines for Drying, Cleaning, and Polishing Moving-Picture Films, of which the following is a specification.

My invention relates to a new and useful improvement in method and machine for drying, cleaning and polishing moving picture films, and has for its object to so manipulate a film of this description as to dry, clean and polish the surface thereof after being wound upon a drum and while revolving the drum.

A further object of my invention is to so provide a drum with a covering as to take up the moisture from the film when wound thereon and gently chafe or rub the surface of the film during the revolutions of said drum.

A still further object of my invention is to provide means for securing the cover upon the drum whereby said cover may be set upon the drum or removed therefrom for cleansing and replacement.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Figure 1, is an end view of a drum adapted for carrying out my improved process.

Fig. 2, is an elevation of Fig. 1, and showing the covering thereon partially broken away and also showing a strip of film wound upon the cover.

Fig. 3, is a plan view of the drum showing the arrangement for securing the covering thereon.

In carrying out my invention as here embodied, 1 represents a drum or holder which may be of any desired construction here shown as consisting of the end rims 2 to which the spokes 3 are secured, said spokes being also secured to the hubs 4. These hubs have a shaft 5 passed therethrough, the ends of which shaft are journaled in the bearings 6 carried by the upper ends of the frames 7 which are intended to be secured to the floor by the foot pieces 8.

One or more rims 9 may be located intermediate of the end rims 2 and ribs 10 are secured to these rims so spaced as to give free circulation of air between said ribs.

11 represents the covering made of a suitable moisture absorbing fabric for hastening the drying of the film and polishing the surface of said film. The meeting ends of this covering are provided with a series of eyelet holes 12 through which the lacing 13 is passed for drawing the ends of the covering together thereby securing the latter upon the drum. In order that the lacing may not mar or interfere with the film being wound upon the drum, I provide a flap 14 which is secured to one end of the covering just back of the eyelet holes, and this flap is turned over the lacing in a direction reverse to the travel of the drum when the film is being wound thereon so that the motion of the drum will cause the flap to retain its position over the lacing. A sufficient amount of the circumference of the drum is left exposed as indicated at 15 in order that a belt may be run thereover from a suitable source of power for revolving the drum.

In practice films are wound upon the drum in lengths the ends thereof being secured to the covering in any suitable manner, a drum being intended to hold a number of these lengths of films, and after the films have been thus applied to the drum the latter is set in motion and the centrifugal force thus developed with the induced currents of air will cause the coverings to pulsate or have an undulating movement which will create a gentle chafing or rubbing against the face of the film lying next thereto and by so doing clean and polish said film while it is drying. Another element entering into the action is the weight of the film which will cause that portion thereof in the lowermost position to separate from the drum and then again contact therewith as the film is carried upward. When this process has been carried to a sufficient degree the film lengths are removed from the drum when they are ready for use without further manipulation.

The use of my process eliminates the neces-

sity of hand or machine polishing and a much superior surface is produced upon the film than has heretofore been the case, while at the same time effecting a considerable saving in time and labor.

Of course I do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is:—

1. The method of drying, cleaning and polishing moving picture films consisting of winding said films upon a drum having an absorbent covering and then revolving said drum in such manner as to cause the absorbent covering to rub the surface of the film lying there against.

2. The method of drying, cleaning and polishing moving picture films consisting of placing said films upon an absorbent material and then undulating said material.

3. The method of drying, cleaning and polishing moving picture films consisting of winding said films upon an absorbent material in circular form and revolving the same to give an undulating movement thereto.

In testimony whereof, I have hereunto affixed my signature.

JAMES W. GUNBY.